1 MORRISON & FOERSTER LLP
   MICHAEL A. JACOBS (Bar No. 111664)
2 mjacobs@mofo.com
   MARC DAVID PETERS (Bar No. 211725)
3 mdpeters@mofo.com
   DANIEL P. MUINO (Bar No. 209624)
4 dmuino@mofo.com
   755 Page Mill Road, Palo Alto, CA 94304-1018
5 Telephone: (650) 813-5600 / Facsimile: (650) 494-0792

6 BOIES, SCHILLER & FLEXNER LLP
   DAVID BOIES (Admitted *Pro Hac Vice*)
7 dboies@bsfllp.com
   333 Main Street, Armonk, NY 10504
8 Telephone: (914) 749-8200 / Facsimile: (914) 749-8300
   STEVEN C. HOLTZMAN (Bar No. 144177)
9 sholtzman@bsfllp.com
   1999 Harrison St., Suite 900, Oakland, CA 94612
10 Telephone: (510) 874-1000 / Facsimile: (510) 874-1460
   ALANNA RUTHERFORD
11 575 Lexington Avenue, 7th Floor, New York, NY 10022
   Telephone: (212) 446-2300 / Facsimile: (212) 446-2350
12
   ORACLE CORPORATION
13 DORIAN DALEY (Bar No. 129049)
   dorian.daley@oracle.com
14 DEBORAH K. MILLER (Bar No. 95527)
   deborah.miller@oracle.com
15 MATTHEW M. SARBORARIA (Bar No. 211600)
   matthew.sarboraria@oracle.com
16 500 Oracle Parkway, Redwood City, CA 94065
   Telephone: (650) 506-5200 / Facsimile: (650) 506-7114
17
   Attorneys for Plaintiff
18 ORACLE AMERICA, INC.

19   **UNITED STATES DISTRICT COURT**

20   **NORTHERN DISTRICT OF CALIFORNIA**

21   **SAN FRANCISCO DIVISION**

22 ORACLE AMERICA, INC.   Case No. CV 10-03561 WHA

23
                       Plaintiff,   **ORACLE AMERICA, INC.'S OPPOSITION
24   v.   TO GOOGLE'S MOTION TO STRIKE
                                           PORTIONS OF THIRD EXPERT REPORT
25 GOOGLE, INC.   BY IAIN COCKBURN AND EXPERT
                                           REPORT BY STEVEN SHUGAN**
26   Defendant.
                                           Dept.: Courtroom 8, 19th Floor
27   Judge: Honorable William H. Alsup

28

BOIES, SCHILLER & FLEXNER LLP
OAKLAND, CALIFORNIA

1

TABLE OF CONTENTS

22

23

24

25

26

27

28

BOIES, SCHILLER & FLEXNER LLP
OAKLAND, CALIFORNIA

TABLE OF AUTHORITIES

CASES

ORACLE AMERICA'S OPPOSITION TO GOOGLE'S MOTION TO STRIKE
CASE NO. CV 10-03561 WHA

BOIES, SCHILLER & FLEXNER LLP
OAKLAND, CALIFORNIA

ORACLE AMERICA'S OPPOSITION TO GOOGLE'S MOTION TO STRIKE
CASE NO. CV 10-03561 WHA

I. INTRODUCTION

In his revised damages report ("Report"), Prof. Cockburn applies two new apportionment methods, both grounded in this Court's Orders and established case law. In addition, he provides further explanation of his approach to claim-by-claim and future damages, and minor revisions to his econometric analysis. Other than that, as required by the Court, his report is unchanged.

Based on the new apportionment methods, and after accounting for any reductions for failure to mark or for the limitation to only accused products, Prof. Cockburn calculates a range of minimum reasonable royalty damages for the patent claims ($17.7 to $57.1 million) and the copyrighted API claims ($34.7 to $111.9 million). (Report ¶¶ 5-6.) The "starting point" for those calculations is the combination of Sun's $100 million offer and the $557 million that Sun expected to earn over three years from a compatible Android, both of which the Court previously ruled could be used to calculate damages based on a hypothetical negotiation. (Dkt. 685 at 4-7.) Prof. Cockburn's copyright lost profits and infringer's profits calculations and analyses are unchanged.

In its entire brief, Google cites only eight cases (not one of which supports the points Google advances), an oral argument transcript from a different case, and a losing *in limine* brief that Google mischaracterizes as a federal court decision. Google claims that Prof. Cockburn and Prof. Shugan failed to perform analyses that they did perform and expressly documented. Google makes factual assertions, and then quotes testimony that negates those assertions. Google speculates that there might be facts that contradict Prof. Cockburn's analyses, but offers no evidence to support its musings. Nothing in Google's brief justifies exclusion of any expert opinion in this case.

Google first attacks Prof. Cockburn's "independent significance" approach to apportioning the value that would have been included in the 2006 transaction (the "2006 Bundle"). In that approach, Prof. Cockburn considers the available evidence concerning the attributes provided by the patents and copyrights and the importance of those attributes to Google as of 2006. Google's attack has two prongs:

- Google contends Prof. Cockburn's conclusion that the patents in suit account for at least 25% of the value of the 2006 Bundle is impermissibly subjective because the figure is not based on a "quantitative algorithm or formula." But "[t]here is no mathematical formula for the determination of a reasonable royalty." *Faulkner v. Gibbs*, 199 F.2d 635, 639 (9th Cir. 1952). Prof. Cockburn's approach is consistent with the Federal Circuit decision in *Finjan,*

1

1   *Inc. v. Secure Computing Corp.*, 626 F.3d 1197 (Fed. Cir. 2011). Google ignores *Finjan*.

2   • Google argues that Prof. Cockburn's use of 25% is an improper attempt to rely on the "25%
3   rule of thumb" royalty rate that the Federal Circuit rejected in *Uniloc*. But this argument
         ignores that the independent significance approach does not calculate a ***royalty rate***; it simply
4   apportions the 2006 Bundle. Moreover, Prof. Cockburn relies on no rule of thumb; he
         examines the specific evidence in this case to determine proper apportionment percentages.

5   Google next attacks Prof. Cockburn's "group and value" approach to apportionment. In that
6   approach, Prof. Cockburn identifies, values, and accounts for all of the elements of the 2006 Bundle
7   other than the patents and copyrights. He then relies on work done by Oracle's Chief Architect for
8   the Java Platform, Dr. Mark Reinhold, and other Java engineers to identify the patents that would be
9   expected to contribute the greatest technical benefits to a smartphone platform in 2006. Numerous
10   studies of patent value establish that most of the value of a group of patents is attributable to a very
11   small number of patents in the group. Those studies calculate curves that allow one to estimate the
12   percentage of portfolio value attributable to the most significant patents in the portfolio. Prof.
13   Cockburn uses the engineers' conclusions that three of the asserted patents are among the most
14   technically important 4% of the 2006 portfolio to apportion economic value according to these
15   curves. Google's arguments in response are unfounded:

16   • Google argues that the four engineers supporting Dr. Reinhold were biased by their previous
17   analyses of Sun's patents for litigation purposes. As this Court has previously made clear, the
         claim of bias is a cross-examination point, not a *Daubert* argument. But there was no bias.
18   Google fails to mention that the engineers testified under oath that their previous analyses
         covered dozens of patents, not just the patents-in-suit.

19   • Google argues that the engineers' analysis is too vague because it does not rank each of the
20   569 patents individually. But false precision does not make for good evidence or good
         engineering analysis. Prof. Cockburn appropriately deals with this by having an upper bound
21   and a lower bound measurement of the value of the patents-in-suit.

22   • Google speculates that the portfolio of patents identified by the engineers may have a
23   different value distribution than the patents in the studies that Prof. Cockburn cites. But
         Google cannot say whether the distribution really is different, whether any difference is
24   material, or whether any difference would increase or decrease damages.   Prof. Cockburn has
         made clear that the distribution of patent value in the studies – across countries, across
25   industries, and within specific product groups – is the same as for the Sun portfolio and is
         consistent with his own observations of single company portfolios.

26   • Google argues that Prof. Cockburn fails to subtract the full value of copyrighted source code
27   (not in suit) that Sun would have conferred in the 2006 Bundle. Google is wrong. Prof.
         Cockburn identifies all of the relevant copyrighted material. For copyrighted source code not
         in suit, he calculates the value to Google of avoiding the expense of writing that code itself.
28   With respect to code implementations, there is no basis for attributing greater value than the

2

1
2
3
4
5

cost of writing them.

- Google argues that Prof. Cockburn failed to account for *unasserted* claims within the asserted patents. But the Court's requirement that Oracle separately calculate damages for the asserted claims was for purposes of determining a verdict if some asserted claims were more valuable than others, or if some claims were later found to be invalid. Prof. Cockburn was not required to calculate a value for every claim, asserted and unasserted, of a patent, particularly when neither real nor hypothetical negotiators in 2006 would have done so.

6
7
8
9
10
11
12
13
14
15

Google also argues that Prof. Shugan's conjoint analysis should be excluded. Google claims that conjoint analysis is a market research tool, not a way to calculate damages. Google's argument that only methods specifically developed for litigation are admissible, while those that are accepted by academics and professionals as rigorous and reliable are not, contradicts *Daubert* itself. Market surveys are routinely used in litigation to calculate damages, and the Federal Circuit has specifically approved their use to show what parties would have expected at the time of a hypothetical negotiation. Moreover, conjoint analysis has repeatedly been used in litigation, and many experts, including Google's own copyright damages expert, Dr. Cox, have concluded that it is a proper way to calculate infringement damages. None of Google's specific attacks on Prof. Shugan's analysis here have any merit. Even if they did, those attacks are grounds for cross-examination, not exclusion.

16
17
18
19
20
21
22
23
24

Finally, Google attacks Prof. Cockburn's econometric analysis. That study uses eBay data from smartphone auctions to assess the value that consumers would place on the performance benefits provided by the patents-in-suit (as shown by the benchmarking analyses). Google asserts that eBay purchasers are unrepresentative, without explaining how or why, while ignoring Prof Cockburn's explanation why this is not so. Google also asserts that if Android phones were slower, their price would drop, mitigating the effect on its own market share. But Google never explains how it would dictate phone prices to the OEMs and carriers who must build and subsidize those mediocre phones. Moreover, Google's assertion *concedes* that the performance enhancement provided by the patents in suit is valuable to consumers. Google's arguments provide no basis for exclusion.

25

II.   ARGUMENT

26

A. Prof. Cockburn's "Independent Significance" Analysis Is Legally And Factually Sound

27
28

Prof. Cockburn's independent significance approach evaluates (a) the specific attributes provided by the patents and copyrights in suit, (b) Google documents that demonstrate the importance

3

BOIES, SCHILLER & FLEXNER LLP
OAKLAND, CALIFORNIA

1   to Google of those specific features and functionality, and (c) quantitative measures of the

2   performance and economic benefits that the parties would have expected from the infringement, as

3   demonstrated by benchmark performance tests and the input of technical experts and generally

4   supported by the conjoint survey and econometric data. (Report ¶¶ 421, 459, Exs. 6-11.) Based on

5   all of that evidence, Prof. Cockburn concludes that at least 25% of the value of the 2006 Bundle

6   should be attributed to the patents in suit, and at least 12.5% should be attributed to the copyrighted

7   API specifications in suit. (*Id.* ¶¶ 5-6, 423, 670.)

8   Google does not dispute that the speed, memory and applications provided by the patents and

9   copyrights were and are important to Android. Instead, Google argues that Prof. Cockburn's

10   quantification of the value of the property in suit is nothing more than a "subjective guess" derived

11   "without using any quantitative algorithm or formula" and that Prof. Cockburn's apportionment

12   analysis runs afoul of the Federal Circuit's rejection of the "25% rule of thumb" for a reasonable

13   royalty in *Uniloc*. (Dkt. 718 at 1, 4-7.)

14   Like almost all of the arguments in its motion, Google's insistence that a reasonable royalty

15   calculation must be based on some "quantitative algorithm or formula" (Dkt. 718 at 1) rests on

16   nothing but Google's own say-so. Google cites **no** legal authority in support of its argument. To the

17   contrary, the Ninth Circuit has held that "[t]here is no mathematical formula for the determination of

18   a reasonable royalty." *Faulkner*, 199 F.2d at 639; *see also Lucent Tech., Inc. v. Gateway, Inc.*, 580

19   F.3d 1301, 1325 (Fed. Cir. 2009) (hypothetical negotiation "necessarily involves an element of

20   approximation and uncertainty") (internal quotation and citation omitted); *Veritas Operating Corp. v.*

21   *Microsoft Corp.*, No. C06-0703-JCC, 2008 WL 7404617, at *5 (W.D. Wash. Feb. 26, 2008) (denying

22   motion to exclude expert damages; reasonable royalty calculation does not require "mathematical

23   formula" or "mathematical precision").

24   The Federal Circuit's decision in *Finjan, Inc. v. Secure Computing Corp.*, 626 F.3d 1197

25   (Fed. Cir. 2011) squarely supports Prof. Cockburn's independent significance analysis. In *Finjan*, the

26   jury found that defendant Secure Computing infringed three of Finjan's software patents related to

27   "proactive scanning" (techniques for defending against computer viruses), and awarded reasonable

28   royalty damages based on the testimony of Finjan's expert, Russell Parr. *Id.* at 1201. On appeal,

4

Secure challenged the damages award on numerous grounds, including the sufficiency of Dr. Parr's testimony under *Georgia Pacific* factors 10 and 13, which concern "the nature of the patented invention" and "the portion of the realizable profit that should be credited to the invention." *Id.* at 1211. Secure argued that Dr. Parr failed to fully account for the other software modules included in the accused products that also contributed to their profits. *Id.* The Federal Circuit disagreed:

> Parr testified that, based on Secure's internal documents, proactive scanning was "fundamentally important to the product," while Degen [Secure's expert] agreed after reviewing Secure and Finjan promotional materials that "[i]t's important technology. It was perceived as the next wave." Those materials included statements emphasizing Secure's ability to "proactively protect" customers with "Webwasher Proactive Scanning." From this evidence, the jury could infer that a substantial fraction of the accused products' profits stemmed from proactive scanning.

Id. (internal record citations omitted). Dr. Parr offered no algorithm or formula for his apportionment of profits and no quantitative evidence, but nonetheless testified regarding a specific range of appropriate apportionment values. The Federal Circuit held that the jury was "entitled to hear the expert testimony" and affirmed the damages award based on that testimony. *Id.* at 1212. Google never addresses *Finjan*, though the Court and Oracle both have previously cited it.

Prof. Cockburn's conclusion here considers and relies upon far more evidence than Dr. Parr did in concluding that Finjan's patents accounted for a "substantial fraction" of the value of Secure's virus detection software. Like Dr. Parr, Prof. Cockburn considers Google's contemporaneous documents, which repeatedly emphasize the critical importance of the speed and memory that the asserted patents provide. (Report ¶¶ 63, 441-46, 448, 450.) Google does not try to rebut that evidence, but rather argues that speed, memory and applications are "obvious features" (Dkt. 718 at 1). But calling features "obvious" does not make them unimportant – indeed, they may be obvious *because* they are so critical to the commercial success of a smartphone.

Prof. Cockburn also considers the cost of memory and hardware needed to compensate for a non-infringing device's larger footprint (Report ¶¶ 432, 453-55; Exh. 16) and benchmarking evidence showing the substantial incremental performance improvements provided by the patented technology. (*Id.* ¶¶ 425–38.) In addition, he considers the results of the conjoint survey and econometric analyses of consumer preferences as general quantitative indicators of how important those features are. (*Id.*

5

1   Exs. 6-11.)[1] Because all of this data is precisely the type of information that could have been

2   obtained at the time of the hypothetical negotiation (Report ¶¶ 426, 458), it is properly considered to

3   establish a royalty. *Lucent*, 580 F.3d at 1333–34; *see also* Dkt. 718 at 15-16 (Google concession that

4   conjoint analysis is frequently used when "designing or launching a new product").)

5   In short, nothing in Prof. Cockburn's testimony states or suggests, as Google contends, that

6   Prof. Cockburn "made up [the 25%] number because it felt right to him." (*Id.* at 6.) Instead, even the

7   testimony Google quotes shows that his quantification is based on objective ***evidence***, not a

8   "subjective judgment," as Google asserts. (Dkt. 718 at 7.)

9   Google cites no legal support for its attack on the independent significance approach. Instead,

10 it invents an argument that Prof. Cockburn's *Finjan* analysis is a "disguised resurrection" of the

11 "25% rule of thumb" rejected in *Uniloc USA, Inc. v. Microsoft Corp.*, 632 F.3d 1292 (Fed. Cir.

12 2011). In support of its argument, Google relies only on coincidence: Prof. Cockburn's patent

13 apportionment percentage is 25%, and the "rule of thumb" was a 25% royalty. Google's attempt to

14 relate the two is off base. ***First***, What Google describes as an impermissible "subjective" analysis is

15 in fact the approach that the Federal Circuit approved in *Finjan*. ***Second***, in *Uniloc* the court rejected

16 the rule of thumb not because it was "subjective," but because it was a constant, arbitrary value

17 unrelated to the facts of the case, *see* 632 F.3d at 1313-18. In contrast, the independent significance

18 approach rests upon consideration of the specific evidence in this case, not any generic rule of thumb.

19 ***Third***, the approach is an apportionment analysis of the percentage of the ***2006 Bundle*** attributable to

20 the patents and copyrights in suit, not the calculation of a ***royalty rate***. It has nothing at all to do with

21 the 25% rule of thumb at issue in *Uniloc*.

22   Google's claim Prof. Cockburn "admitted at deposition that he included the caveat 'at least' to

23 preserve his flexibility to argue a much higher percentage to the jury" (Dkt. 718 at 1) is also false.

24 Google pressed Prof. Cockburn to identify an upper limit for the apportionment percentage for the IP

25 in suit, and he stated that the percentages could be substantially greater (*see id.* at 6-7 (quoting

26 ───────────────────
[1] Google incorrectly claims that Dr. Cockburn does not discuss the conjoint or econometric analyses
27 in the independent significance section of his report. (Dkt. 718 at 5.) In fact, paragraph 459 of that
section makes clear that the evidence on which he relies is summarized in Exhibits 6-11 of his report,
28 which refer to the results of the conjoint and econometrics analyses.

6

1   testimony)). That testimony in no way undermines his damages calculations, which are based on the

2   minimum apportionment percentages that he derived based on his review of the evidence, and which

3   make no adjustment for fragmentation or the litigation premium. Google's claim that Prof.

4   Cockburn's analysis cannot be "replicated" (*id.* at 7) is also factually and legally wrong. Google

5   engineers could have conducted performance tests on Android phones; Google could have hired a

6   survey expert; Google's experts could have conducted an econometric study; and Google's experts

7   could, like Prof. Cockburn, consider the evidence. But in any event, because expert valuation of

8   intellectual property, unlike a chemistry experiment, "necessarily involves an element of

9   approximation and uncertainty," *Lucent*, 580 F.3d at 1325, its admissibility cannot hinge on whether

10 it can be "replicated." *See Kumho Tire Co., Ltd. v. Carmichael*, 526 U.S. 137, 150-51 (1999) (expert

11 testimony that relies on "personal knowledge or experience," such as valuation of property, may not

12 be susceptible to scientific standards of reliability); *American General Life Ins. Co. v. Schoenthal*

13 *Family, LLC*, 555 F.3d 1331, 1338 (11th Cir. 2009) ("Standards of scientific reliability, such as

14 testability and peer review, do not apply to all forms of expert testimony.").

B. Prof. Cockburn's "Group And Value" Analysis Is Reasonable And Admissible

16   In the "group and value" approach, Prof. Cockburn identifies the elements of the 2006 Bundle

17 and subtracts the value of the elements other than the patents and copyrights in suit. (Report ¶¶ 361-

18 90.) To help apportion value between the patents in suit and other patents, Dr. Cockburn asked Dr.

19 Reinhold to evaluate what Sun patents would have been included in the 2006 Bundle and which of

20 those patents would have been expected to contribute the greatest technical benefit to a smartphone

21 platform. (*Id.* ¶¶ 391-97.) Prof. Cockburn considers studies showing that the distribution of value

22 within a group of patents is highly skewed; that is, a very small number of patents will account for a

23 very large percentage of the value of a portfolio. Dr. Cockburn applies the engineers' ranking of the

24 technical benefits provided by the patents in Sun's portfolio to the distribution curves described by

25 the studies, and calculates an apportionment range on that basis. (*Id.* ¶¶ 403-15.) This method

26 carefully applies established economic principles to the facts of this case. Indeed, allocating value

27 within a company's patent portfolio based on evidence of the asserted patents' relative value and

28 established distribution curves has been accepted by other courts. *See LG Display Co., Ltd. v. AU*

1   *Optronics Corp.*, 722 F. Supp. 2d 466 (D. Del. 2010).

2   Google challenges Prof. Cockburn's (a) reliance on Oracle engineers to select and rank the

3   patents that likely would have been included in the 2006 Bundle; and (b) method of evaluating the

4   relative economic value of the patents-in-suit based on studies concerning the distribution of value

5   among patents. (Dkt. 718 at 7-11.) Neither challenge warrants exclusion under *Daubert*.

6   The core of Google's argument is an unreasonable and insupportable notion of what is

7   required for expert analysis to survive attack under the *Daubert* standard. Google first takes Dr.

8   Reinhold to task for not "offer[ing] even a guess as to the ranking [of each individual patent] among

9   these top 22," (Dkt. 718 at 9), and then criticizes Prof. Cockburn for applying a well-accepted

10   economic rationale for attributing value to the patents group-ranked by the engineers. Google would

11   have this Court require a standard of false precision that lies beyond the ability of engineering and

12   economics and still further beyond the gate-keeping requirements of the law.

13   1.   Prof. Cockburn's Consideration Of The Work Performed By Oracle Engineers Is
             Appropriate

14   Google badly mischaracterizes the work that Oracle's Java engineers performed to assist Dr.

15   Cockburn. That work is described in detail in the engineers' depositions and in declarations that each

16   has submitted.[2] All five engineers were Sun employees with over 70 years combined experience in

17   overlapping elements of the Java language, Java virtual machines, and Java virtual machines on small

18   embedded devices. All five are the inventors of Java-related patents (none of which are in suit) that

19   would have been included in the 2006 portfolio. All five are deeply experienced in evaluating and

20   implementing inventions related to the performance of Java virtual machines. ((Reinhold Decl. ¶¶ 4-

21   7; Rose Decl. ¶¶ 3-6; Wong Decl. ¶¶ 3-7; Kessler Decl. ¶¶ 3-8; Plummer Decl. ¶¶ 3-7.) One was

22   directly involved in the 2006 negotiations with Google. (Wong Decl. ¶ 5; Wong Tr. 23:24-25:18.)

23   Dr. Kessler has also served on Sun's and Oracle's Patent Review Committee, in which he assesses

24

25

26   ───────────────
     [2] Excerpts of the deposition transcripts of the five Oracle engineers are attached to the Norton
27   declaration as Exhibits F (Dr. Mark Reinhold), G (John Rose), H (Hinkmond Wong), D (Peter
     Kessler), and E (Christopher Plummer). We refer to those deposition transcripts and declarations in
28   this brief by last name (e.g., "Reinhold Tr." and "Reinhold Decl.").

8

1   the technical merit of many Java-related inventions. (Kessler Decl. ¶ 6.)[3]

2   The engineers began by applying their experience, as well as the Android Product

3   Requirements Document that Google gave Sun in 2006, to identify 22 "technology blocks" covered

4   by Sun's Java patents in 2006 relevant to a smartphone at that time. (*See, e.g.*, Reinhold Decl. ¶ 10.)

5   They then ranked those 22 groups, in terms of their importance to a smartphone platform, by

6   considering their importance to startup time, speed, memory and security – all criteria they regularly

7   use to judge Sun's and Oracle's own Java implementations. (*Id.* ¶ 19.)

8   The engineers also reviewed a deliberately over-inclusive list of over 1300 patents issued to

9   Sun prior to June 30, 2006 that included the term "Java" or "bytecode" anywhere in the patent or

10 listed James Gosling or Nedim Fresko as an inventor. (Simion Decl. ¶¶ 3-9.) The engineers were

11 already familiar with the overwhelming majority of these patented inventions, as they were (or knew)

12 the inventors, were directly or indirectly involved in the implementations of those inventions,

13

14 (Reinhold Decl. ¶¶ 4-7; Rose Decl. ¶¶ 4-8; Wong Decl. ¶¶ 4-7; Kessler Decl. ¶¶ 4-8; Plummer Decl.

15 ¶¶ 4-7; see also footnote 3.) By reviewing the titles, abstracts, inventors, application dates, and where

16 necessary, the specifications and claims, the engineers were able to evaluate which patents would

17 have been relevant to the parties' 2006 smartphone platform negotiations, and to assign the relevant

18 patents to the appropriate technology blocks. (*See, e.g.*, Reinhold Decl. ¶ 17; Kessler Decl. ¶ 9.) The

19 engineers confirmed the accuracy of their initial categorization of the patents by reviewing the

20 patents both together and individually in categories in which they had special expertise. (Reinhold

21 Decl. ¶ 17.) This process left 569 potentially relevant patents.

22   The engineers rated the technical importance of each of the 569 patents on a 3-point scale,

23 considering the patent's expected contribution to a smartphone platform's startup, speed, or footprint.

24 (*Id.* ¶ 21.) The engineers could provide this ranking in a matter of days because the scale was

25 _____

26 [3] The engineers each detailed the breadth of their knowledge and experience during their depositions.
    (Reinhold Tr. 6:4-8:10, 23:13-23, 48:3-49:16; Rose Tr. 12:22-13:18, 26:22-28:9, 28:18-24, 77:15-
27 78:11, 80:9-14; Wong Tr. 13:1-12, 15:13-17:22, 39:13-19, 64:17-65:8, 66:17-67:6, 69:4-70:6, 145:4-
    146:6, 147:3-148:11, 153:15-154:8; Kessler Tr. 22:2-22, 23:19-24:4, 37:20-38:6; Plummer Tr. 10:10-
28 11:2, 16:18-17:10, 35:9-36:15, 96:2-19, 97:11-98:5, 99:14-101:17.)

9

1   manageable, they were already familiar with the patented inventions based on years of experience,

2   and they had already spent an intensive week examining and discussing the patents. (Reinhold Decl.

3   ¶ 22; Wong Decl. ¶¶ 11-21; Plummer Decl. ¶¶ 11-20; Kessler Decl. ¶¶ 12-21; Rose Decl. ¶¶ 12-21;

4   Wong Tr. 64:11-66:6, 146:18-148:21; Rose Tr. 77:15-78:11; Plummer Tr. 97:11-98:5.) Each patent's

5   rating was independent of the importance of the technology block to which the patent was assigned.

6   (Reinhold Decl. ¶ 19.) By identifying the patents and blocks rated most highly, the engineers were

7   able to identify the 22 most important patents of the 569. Three out of six (now five) of the asserted

8   patents – the '104, the '720, and the '205 – were among the top 22 patents, comprised of patents rated

9   a "1" on the individual rating scale and assigned to one of the three top-ranked technology blocks.

10   Google argues that the four engineers who assisted Dr. Reinhold were "biased" ▮

11   ▮

12   ▮

13   ▮

14   ▮

15   ▮

16   ▮

17   ▮

18   ▮) There is simply no factual basis for any assertion of bias in favor of the

19   patents that happen to be at issue in this one lawsuit.

20   Even were there a factual basis for a claim of bias, it is not cognizable in this motion.

21   Google's own damages experts in this case rely heavily on party employees for information, and the

22   Court has already ruled that they may do so provided that the foundational facts are established at

23   trial. (Dkt. 632 at 2-3 ("If Oracle is worried about bias, then it should make its arguments on cross-

24   examination.").) The same reasoning applies here.

25   Google also suggests that the engineers had too little time to rate the patents, and should have

26   conducted "quantitative testing" of all 569. (Dkt. 718 at 7-9.) Each of the engineers has rejected that

27   contention in sworn testimony. (Reinhold Tr. 41:23-42:11; Wong Decl. ¶ 24; Plummer Decl. ¶ 23;

28   Kessler Decl. ¶ 24; Rose Decl. ¶ 24.) Google ignores that testimony, as well as the engineers'

BOIES, SCHILLER & FLEXNER LLP
OAKLAND, CALIFORNIA

1   testimony that they relied on *years* of experience with implementations of the patents and long-

2   standing familiarity with many of the inventions to inform their technical assessment of the

3   engineering benefits of the patents in the portfolio. Google's arguments at most go to the weight of

4   the evidence, not admissibility. *See Hangarter v. Provident Life & Acc. Ins. Co.*, 373 F.3d 998, 1017

5   n.14 (9th Cir. 2004) (factual basis for expert opinion goes to credibility of testimony, not

6   admissibility; opposing party may examine basis for opinion in cross-examination).

7   2.   Prof. Cockburn's Consideration Of Industry Studies Reflecting Patent Value Distributions Is Appropriate

8   Based on the engineers' identification of the 22 technically most significant patents that

9   would have been included in the 2006 Bundle, Prof. Cockburn applied published studies that examine

10   the distribution of patent value to estimate the percentage of the total portfolio value that would have

11   been attributed to those top patents. (Report ¶¶ 403-12 & Exs. 34-35.)

12   This approach was approved in *LG Display Co., Ltd. V. AU Optronics Corp.*, 722 F. Supp. 2d

13   466 (D. Del. 2010). There, AU Optronics (AUO) asserted that LG Display infringed four patents.

14   AUO's damages expert, Jonathan Putnam, reviewed industry portfolio licensing practices to

15   determine the amount that LG Display would have paid AUO for its entire portfolio. To determine

16   the value of the four specific patents in suit, Putnam assumed that those four patents were in the top

17   5% of AUO's patent portfolio and calculated their likely value based on a distribution curve from a

18   single paper that examined patent values for the entire electronics industry. (Norton Decl. Exh. A

19   (Putnam declaration describing analysis) at 7 n.4, 8.) Putnam's distribution curve showed that the

20   average patent in the top 5% was worth 29 times more than the average patent in the bottom 95%,

21   and on that basis he calculated a royalty for the four asserted patents. (*Id.* at 7–8.) The court found

22   Putnam's "testimony and methodology to be credible and consistent with Federal Circuit case law

23   and the *Georgia-Pacific* factors, despite LGD's assertions to the contrary," and awarded damages

24   consistent with that testimony. *LG Display*, 722 F. Supp. 2d at 472.

25   Prof. Cockburn's analysis is more rigorous. He does not simply assume the importance of the

26   patents in suit; he relies on the informed assessments of experienced Java engineers. He does not use

27   a single distribution curve; he considers three such curves, based on detailed academic studies across

28

ORACLE AMERICA'S OPPOSITION TO GOOGLE'S MOTION TO STRIKE
CASE NO. CV 10-03561 WHA

BOIES, SCHILLER & FLEXNER LLP
OAKLAND, CALIFORNIA

1   countries, industries, and products. He does not simply assume that the Java patent portfolio at issue

2   here would share a similar distribution; he has the engineers' own assessment, which confirms that a

3   relatively small number of the patents would have the greatest technical value, while the majority

4   would have little importance to a smartphone platform. He also relies on his own experience having

5   observed the same highly skewed value distribution of single-company patent portfolios. (Report ¶

6   404; Norton Decl. Exh. B (Cockburn Tr. 107:20-110:19); Cockburn Decl. ¶¶ 4-12.)

7   Google contends that the three studies cited by Prof. Cockburn have "nothing to do with the

8   Sun portfolio at issue" and "are likely to have different distributions of value than the Sun portfolio."

9   (Dkt. 718 9-10). Notably, Google does not challenge the conclusion that the distribution of value in

10   the Sun portfolio would be highly skewed, a fact that has been observed, documented, and studied for

11   decades. (*See* Cockburn Decl. ¶¶ 4-6.) Instead, Google speculates – without a shred of analysis or

12   factual support – that superficial differences between the relevant Sun portfolio and the patents in the

13   studies are "critical" and make it "likely" that the degree of skewness in the Sun portfolio might be

14   different from the studies. (Dkt. 718 at 10.) Lacking any support for this conjecture, Google does

15   not even try to argue that the curves really would be different, that the supposed difference would be

16   material, or that accounting for the supposed difference would actually decrease damages.

17   ***First***, Google argues that none of the three studies examined distribution of patent value

18   within a single company's portfolio. (Dkt. 718 at 10.) But Prof. Cockburn specifically explained at

19   his deposition why this is not a meaningful distinction:

20   As I've said a few times, it's striking that these types of studies done for many
  different sets of patents and in many different contexts using many different
21   methodologies all point to a conclusion which I don't think is controversial, which is
  that the value distribution is highly skewed. So based upon that, it is my opinion that I
22   have no reason to believe that the 569 patents of interest here would have a value
  distribution which is any less skewed than that which has been found so many times in
23   so many different circumstances. . . .

24   I'm very familiar myself with looking at portfolios of patents held by specific
25   companies or organizations that I've done research projects on which show this
  similar degree of skewness. For example, a number of years ago, had a doctoral
26   student who was studying patents licensed or offered for license by M.I.T. so he could
  see the entire portfolio of inventions and worked on – he knew what the licensing
27   payments were, he was able to come up with a valuation based upon a calculation or a
  projection of licensing revenue. And I think that -- I can't recall the precise number

28

ORACLE AMERICA'S OPPOSITION TO GOOGLE'S MOTION TO STRIKE
CASE NO. CV 10-03561 WHA

BOIES, SCHILLER & FLEXNER LLP
OAKLAND, CALIFORNIA

1

2

> from memory, but I think that portfolio displayed exactly the property that a handful of patents of the order of 1 or 2 percent constituted 50 percent of the economic value.

3

4

5

6

7

> More recently I worked on research projects again looking at licensing data collected for all the patents, several thousand patents in the portfolio which is held by two large academic medical research centers who prefer to remain nameless but are not a million miles from here, and I've looked closely at the data on their licensing. And again they display the same phenomenon: that a large number of the patents are essentially valueless by the metric of are they able to attract licensing revenue. And even among those licensed, a handful constitute the vast majority of the value and have been licensed or sold for very large sums of money. (Norton Decl. Exh B (Cockburn Tr. 107:20-110:19).)

8

9

Dr. Cockburn's conclusion that single-company portfolios exhibit the same distribution of

10

value as larger populations of patents is supported both by *LG Display*, 722 F. Supp. 2d at 472

11

(approving apportionment analysis based on patent value distribution for entire electronics industry)

12

and the academic literature (Cockburn Decl. ¶¶ 7-12 & Exh. B at 560 (article observing similar

13

distribution of values for Harvard patent portfolio).) Prof. Cockburn's explanation of his reasoning is

14

more than adequate. *See Kennedy v. Collagen Corp.*, 161 F.3d 1226, 1230 (9th Cir. 1998) (refusing

15

to exclude testimony where expert had "set forth the steps he took in arriving at his conclusion at his

16

deposition"). Google provides no affirmative basis on which the Court could conclude otherwise.

17

Second, Google argues that the 569 patents are confined to software patents for smartphone

18

functionality, unlike the studies cited by Prof. Cockburn. (Dkt. 718 at 10.) Again, Prof. Cockburn

19

explained why the Sun portfolio at issue here would be expected to show the same distribution as

20

other patent populations. That conclusion is supported by the published research, which confirms the

21

same highly skewed distributions for patents limited to specific product areas. (Cockburn Decl. ¶ 8.)

22

Google provides nothing to show the distinction makes any difference at all, much less a "critical"

23

one that "means" the distribution here differs from the studies Prof. Cockburn cites.

24

Third, Google complains that the 569 patents were "selected deliberately for relevance to this

25

case," whereas the cited studies looked at randomly selected patents. (Dkt. 718 at 10.) But the

26

purpose of the "selection" was to identify the ***entire*** set of patents that would have been relevant to a

27

smartphone in 2006, based on objective indicia of relevance. (Reinhold Decl. ¶¶ 17-18.) Google

28

cites no example of any patent that was improperly excluded.

13

1   ***Fourth***, Google notes that two of the studies cited by Prof. Cockburn relied on European

2   patents, whereas one relied on US patents. (Dkt. 718 at 10.) Google tries to argue that "this is not a

3   trivial difference" because one of the studies observed that ***citation counts*** – not distributions of value

4   – look very different for German patents than US patents. (*Id.*) On that basis, Google claims that

5   "the text of one of [Prof. Cockburn's] source studies refutes" the assumption that the value

6   distribution is comparable. (*Id.*) Differences between European and US citation practices have

7   nothing at all to do with whether there is any difference in the distribution of patent values.

8   Moreover, as the authors of the study explain immediately after the words Google quotes – but

9   Google omits from its brief – "applicants at the EPO are not required to supply a full list of prior art"

10   so they cite far fewer patents than US applicants. (Zimmer Decl. Exh. C (Harhoff study) at 1355.)

11   In fact, the PatVal survey cited by Prof. Cockburn finds distribution curves to be consistent

12   across countries. (Cockburn Decl. Exh. A at 45.) To the extent that there is a difference between US

13   and European patents, the Barney study Prof. Cockburn cites suggests that the value of US patents is

14   even ***more*** skewed, which would tend to increase damages. (Report Exh. 35 (showing damages

15   ranges for each study's curve).) Other studies demonstrate that distribution curves are similar across

16   a sample of German, US, and Harvard patents. (Cockburn Decl. Exh. B at 560.)

17   Google neither addresses Prof. Cockburn's explanations, examines the extensive relevant

18   literature, nor provides any analysis that calls Prof. Cockburn's conclusions into question. Instead, it

19   says Prof. Cockburn's reasoning must be rejected as mere *ipse dixit*, in conflict with *General Electric*

20   *Co. v. Joiner*, 522 U.S. 136, 146 (1997). As *Joiner* held and Google concedes, "experts commonly

21   extrapolate from existing data." 522 U.S. at 146.[4] Numerous decisions confirm that it is reasonable

22

23   [4] *Joiner* is of no help to Google. In that case, the Court held that the district court was within its
discretion in excluding expert testimony that the plaintiff's small cell lung cancer was caused by his

24   exposure to small quantities of PCBs, rather than his history of smoking. The plaintiff's expert relied
on inapposite studies that found that (a) infant mice injected directly with massive doses of PCBs

25   developed a ***different*** kind of cancer; (b) factory workers exposed to PCBs had an elevated incidence
of cancer, but there was ***no basis*** to find a causal connection; (c) factory workers exposed to PCBs

26   had a slightly elevated incidence of cancer, but again made ***no finding of a causal connection***; (d) a
study of Norwegian workers exposed to mineral oil, ***not PCBs***, and (e) a study that found a

27   significant increase in cancer among Japanese workers exposed to PCBs, but those workers had been
exposed to many other carcinogens as well, including "toxic rice oil they had ingested." *Joiner*, 522

28   U.S. at 145-46.

14

1 for experts to rely on industry studies when calculating damages, provided they apply their judgment

2 and analysis. *See, e.g.*, *Arista Records LLC v. Lime Group, LLC*, 06 CV5936KMW, 2011 WL

3 1674796, at *11 (S.D.N.Y. May 2, 2011) (the "fact that these conclusions are based, in part, upon a

4 review of surveys and the relevant literature in the area does not render [expert's] testimony

5 inadmissible, as long as [he] bases his conclusions on his own expertise and analysis where he

6 considered both survey evidence, relevant literature, and his expertise to calculate damages"). Prof.

7 Cockburn uses these studies to inform his analysis and conclusions, and applies his expert judgment

8 and analysis in doing so. While Google would preclude the application of expertise to interpret

9 preexisting studies, such application is precisely what the law both contemplates and requires.

10 **C. Prof. Cockburn Correctly Apportions The Value Of Copyrights In The 2006 Bundle**

11 Prof. Cockburn accounts for the value of the copyrights in the 2006 Bundle in three ways.

12 First, he begins with the draft contract between the parties, which limits the grant of intellectual

13 property to technology that would be specific to the Android smartphone platform.

23 Both calculations likely overstate the cost of

24 Google's independent development. Third, Prof. Cockburn values the copyrighted API

25 specifications, using the independent significance approach. Google's claim that Prof. Cockburn

26 "failed to make any attempt to value all of the copyrights that would have been part of the 2006

27 intellectual property package" (Dkt. 718 at 11) is false.

28 Google attacks Prof. Cockburn's analysis by claiming that he "admitted in his deposition that

15

B O I E S ,   S C H I L L E R   &   F L E X N E R   L L P
O A K L A N D ,   C A L I F O R N I A

1   did not even know what Java-related copyrights Sun owned in 2006" (Dkt. 718 at 12). The

2   deposition testimony Google quotes does not say what Google claims: it simply recites the irrelevant

3   point that Prof. Cockburn does not know precisely *how many* copyrights Sun owned for *all* of Java.

4   Prof. Cockburn certainly *does* know, and analyzes, what *is* relevant: what copyrighted material,

5   including both the copyrighted APIs in suit and the source code implementations (of both API

6   libraries and the virtual machine) on which Google now focuses, would have been included in the

7   2006 Bundle and provided value to Google. (*See* Report ¶¶ 365-82.)

8   Google erroneously claims that Prof. Cockburn "made no systematic effort to measure the

9   value of the millions of lines of code in the API libraries that would have been part of the 2006

10 bundle" (Dkt. 718 at 13). Prof. Cockburn did account for the value of that copyrighted code. He

11 quantified the cost incurred by Google to write the code, which it might have otherwise obtained as

12 part of the 2006 Bundle. As explained below, Prof. Cockburn's evaluation of those costs tracks the

13 value that Sun and Google would have assigned to that aspect of the 2006 Bundle. Prof. Cockburn

14 conducted the same analysis with respect to the development of the Dalvik virtual machine. Google

15 has not identified any other source code that the parties would have valued as part of the 2006 Bundle

16 or that would not have been accounted for in Sun's estimate of $86.15 million in engineering costs.

17   Google complains that Prof. Cockburn "never had anyone from Oracle examine the code

18 libraries to determine their value in relation to the API specifications." (Dkt. 718 at 13.) But Prof.

19 Cockburn had no need to do so. In calculations Google does not challenge, Prof. Cockburn uses the

20 amounts Google paid contractors to write source code for the Java class libraries to calculate the

21 value of *all* of the Sun class library source code to Google. No further analysis is necessary to

22 account for the value of the code. Google's claim that Prof. Cockburn "avoids any specific valuation

23 of those copyrighted materials at all" (Dkt. 718 at 13) ignores the plain language of the report.

24   Finally, Google attacks Prof. Cockburn for using Sun's projected future R&D costs "as a

25 proxy for the value of Sun's then-existing intellectual property (the copyrighted class libraries and

26 source code)." (Dkt. 718 at 13.) Here again, Google misrepresents Prof. Cockburn's analysis.

27

28

16

1

2

3

4   Prof. Cockburn's analysis also obviates Google's arguments

5 about cost versus value and "apples and oranges." (Dkt. 718 at 13.) Google could have written

6 source code without infringing, and Google would not place a value on Sun's code that was greater

7 than the cost to Google of doing the work itself. Accordingly, the value of that code is no greater

8 than Google's saved costs.

9   In any event, as both Prof. Cockburn and Google's copyright expert, Dr. Astrachan, explain,

10 Google derived value by including Oracle's copyrighted API packages to attract the Java developer

11 community by giving them a familiar development environment. (Report ¶¶ 635-36 (quoting Dr.

12 Astrachan).) The Android website boasts that, "Android includes a set of core libraries that provides

13 most of the functionality available in the core libraries of the Java programming language." (*Id.* at

14 479.) Copying Oracle's source code implementation of the core libraries (API packages) was not

15 needed to create that familiar development environment because, as Dr. Astrachan points out,

16 application developers do not care how an API is implemented, as long as it works properly.

17 (Astrachan Report at p. 56.)

18

19

20

21 **D. Prof. Cockburn Correctly Considered And Accounted For Claim-By-Claim Differences
        Within The Portfolio**

22
    Prof. Cockburn's revised report considers and addresses the issue of calculating damages on a

23 claim-by-claim basis. (Report ¶¶ 493-533.) Based on input from Prof. Mitchell, Prof. Cockburn

24 explains how Oracle asserts the same infringement theory for every asserted claim of each patent, and

25 concludes that each of the asserted claims in any of the patents-in-suit should account for the full

26 value associated with each of the patents-in-suit. (*Id.* ¶¶ 494-95.) Prof. Cockburn's report does not

27 fail to apportion damages on a claim-by-claim basis, but rather explains, based on the evidence and

28

BOIES, SCHILLER & FLEXNER LLP
OAKLAND, CALIFORNIA

1   input from Prof. Mitchell, how damages should be calculated if the jury finds Google liable on some

2   but not all asserted claims. Notably, Google's own experts have never argued that damages for one

3   claim of a patent differ from other claims of that patent. (Report ¶ 496.)

4   Google now claims that Prof. Cockburn's apportionment analysis is flawed because he did not

5   "attribute any value to any of the *unasserted* claims of the patents-in-suit." (Dkt. 718 at 14 (emphasis

6   added).) But neither this Court (nor any other) has ever required such an analysis, and it makes no

7   sense to do so here. The Court ruled that it was necessary to value the individual *asserted* claims for

8   a number of reasons, including the possibility that a jury might find infringement as to some but not

9   all of the asserted claims. (Dkt. 685 (1/9/12 Order) at 9-10.)

10   Reducing the value of the patents-in-suit based on the presence of some unasserted claims

11   makes no sense where the relevant inquiry is one of apportionment – what proportion of the 2006

12   Bundle value the parties would have assigned to those patents. Parties to an actual licensing

13   negotiation would not have evaluated every claim – certainly Google and Sun never negotiated over

14   individual claims – and there is no reason to do so now. (Report ¶¶ 336-37.)

15   The granular analysis demanded by Google would introduce false precision without

16   generating more reliable results. The Oracle engineers evaluated each of the 569 patents that might

17   have been included in the 2006 Bundle by considering, among other things, the patent abstracts and

18   descriptions, which describe what invention is covered by each of the patents. To the extent asserted

19   claims deliver the benefits promised by the abstract and description – which they do – they are

20   entitled to the full value of the patent. No reduction is necessary to account for any unasserted

21   claims, each of which would be expected to deliver the same benefits promised by the abstracts.

22   Google suggests that Oracle's decision to narrow the number of claims in suit somehow

23   proves that Prof. Cockburn's analysis is flawed, because Oracle "cannot be heard to argue that those

24   [no longer asserted] claims have no value to Google." (Dkt. 718 at 14.) But it is not Oracle's or Prof.

25   Cockburn's position that those claims had no value to Google. Rather, it is Prof. Cockburn's opinion

26   that the claims would have no *additional* value to Google, above and beyond that of the asserted

27   claims. The evidence indicates that the different claims each address the same functionality.

28   Finally, requiring some additional reduction to account for the value of unasserted claims

18

1   would be particularly problematic in this case, where Oracle has been required to drop claims to

2   narrow this case for trial. If Oracle is forced to reduce damages for the remaining claims based on

3   the existence of unasserted claims, that would mean that those claims presented unique issues as to

4   damages, and the Court's case management orders would be constitutionally suspect. *In re Katz*

5   *Interactive Call Processing Patent Litig.*, 639 F.3d 1303, 1312-13 (Fed. Cir. 2011).

6   **E. Professor Shugan's Conjoint Analysis Is Methodologically Sound**

7   Conjoint analysis is an accepted method of valuing individual product attributes using a

8   consumer survey. (Report ¶¶ 471; 662; Shugan Report p. 5-6.) By considering multiple attributes

9   jointly, survey participants make the implicit tradeoffs one would make in real world purchasing

10 decisions. Comparing respondents' choices when presented with different feature sets allows for the

11 estimation of the relative importance of specific features and their effect on market shares.

12   1.   Conjoint Analysis Is An Appropriate Tool In A Hypothetical License Analysis

13   Google initially attacks the use of conjoint analysis based on the overbroad argument that

14 such analysis should never be admissible to calculate damages in litigation. (Dkt. 718 at 15.) But it

15 is settled law that survey-based studies are admissible for just such a purpose. In *Lucent*, the Federal

16 Circuit held that an expert may rely on surveys to calculate damages:

17   Usage (or similar) data may provide information that the parties would frequently have
       estimated during the negotiation. . . . ***Such data might, depending on the case, come from***
18   ***sales projections based on past sales, consumer surveys, focus group testing, and other***
       sources. . . . This quantitative information, assuming it meets admissibility requirements,
19   ought to be given its proper weight, as determined by the circumstances of each case.

20 *Lucent Technologies, Inc. v. Gateway, Inc.*, 580 F.3d 1301, 1333–34 (Fed. Cir. 2009) (emphasis

21 added). A conjoint study is precisely the kind of analysis that hypothetical parties could have used

22 during the 2006 negotiations. The Federal Circuit has also approved of survey evidence to estimate

23 infringing use, *i4i Ltd. P'ship v. Microsoft Corp.*, 598 F.3d 831, 856 (Fed. Cir. 2010), *aff'd*, 131 S. Ct.

24 2238 (2011); *see also Cornell Univ. v. Hewlett-Packard Co.*, 609 F. Supp. 2d 279, 289 (N.D.N.Y.

25 2009) (Rader, J.) (faulting plaintiff for ***failing*** to produce "customer surveys" that would have backed

26 "predictive claims" that patent-in-suit was "competitive requirement").

27   Many experts have concluded that conjoint analysis is a proper way to calculate intellectual

28 property damages. (Shugan Decl. ¶¶ 10–18 (listing sources).) Indeed, Google's damages expert Dr.

19

1   Cox has described conjoint analysis as a "rigorous" method of calculating damages.[5] Conjoint

2   analysis has been used extensively in litigation. (Shugan Decl. ¶¶ 15-16 (listing cases); Green, P.E.

3   and V. Srinivasan, "Conjoint Analysis in Marketing: New Developments with Implications for

4   Research and Practice," *Journal of Marketing*, October 1990, pp. 3-19 (article published over 20

5   years ago, noting increasing use of conjoint analysis in litigation).)

6   Seeking some disapproval of conjoint analysis, Google mischaracterizes a footnote in

7   *McLaughlin v. American Tobacco Co.*, 522 F.3d 215 (2d Cir. 2008). (Dkt. 718 at 15-16.)

8   *McLaughlin* says **absolutely nothing** about the admissibility of conjoint analysis, much less its

9   application to patent damages.[6] Google provides no legal basis on which to exclude conjoint

10   analysis, and it is wrong to claim that a "dearth of opinions" suggests that such analysis is

11   inadmissible. *Daubert* does not require that a methodology first be accepted by other courts to be

12   admissible. To so hold would be to return to the "general acceptance" test that *Daubert* expressly

13   rejected. *Daubert v. Merrell Dow Pharms., Inc.*, 509 U.S. 579, 597 (1993).

14   2.   Prof. Shugan's Conjoint Survey Was Methodologically Sound

15   Google next presents a series of specific challenges to the reliability of Prof. Shugan's

16   conjoint analysis. (Dkt. 718 at 17-20.) Google made **every one** of these arguments in its opposition

---

[5] Norton Decl. Exh. I (Dr. Alan Cox, "A Better Consumer Survey for Better Damages," *IP Value Commentator* (April 2003), http://www.nera.com/extImage/5958.pdf ("In a choice modeling exercise, survey respondents compare the features of a product and report their preferences for a particular combination of features. The results can be translated into monetary values. . . . This willingness-to-pay and predicted market penetration can then be used to develop a damage estimate.")); *id.* Exh. J (Dr. Alan Cox & Louis Guth, *Survey Techniques for Rigorous Measurement of Damages in Trade Dress Confusion Cases*, NERA (Jan. 8, 2007), http://www.nera.com/67_4876.htm (choice modeling is a "widely accepted, testable technique that has been peer reviewed, has known rates of error and which is often used in market research -- not merely in litigation.")).

[6] *McLaughlin* concerned an effort to extend a presumption of class-wide reliance to a RICO class action alleging that class members had relied on statements about the health benefits of "light" cigarettes. 522 F.3d at 223-25. Although plaintiffs had offered a conjoint analysis in the trial court, that analysis was **not** at issue on the appeal. Rather, in the course of explaining why it would not import a presumption of reliance into RICO cases, the Second Circuit observed in a footnote that the plaintiffs also had difficulty coming up with direct proof of class-wide reliance. *Id.* at 225 n.6. Google incorrectly suggests that the Second Circuit found the study inadequate to prove damages "with sufficient precision to allow a jury award." (Dkt. 718 at 16.) The Second Circuit was not commenting on the adequacy of the studies; it was holding that the plaintiffs' overall approach to damages – a "fluid recovery" that relied on [r]oughly estimating the gross damages to the class as a whole and only subsequently allowing for the processing of individual claims" – would expose defendants to excess damages and violate due process. *McLaughlin*, 522 F.3d at 231.

20

1   to Oracle's *Daubert* motion to preclude Google's patent damages expert from testifying about the

2   conjoint analysis. (Dkt. No. 581 at 14-17; Leonard Decl. (Dkt. No. 581-1) ¶¶ 26-46, 64, 66, 73.) At

3   that time, Google emphasized that these challenges were "a dispute between experts" and "factual

4   disputes or disagreements between experts are not grounds for striking expert testimony." (Dkt. No.

5   581 at 17.) The Court instructed Oracle to "save its critiques" of Dr. Leonard "for trial." (Dkt. No.

6   632 at 7.) The same result should apply now. *See Ruiz-Troche v. Pepsi Cola of Puerto Rico Bottling*

7   *Co.*, 161 F.3d 77, 85 (1st Cir. 1998) ("As long as the expert's scientific testimony rests upon 'good

8   grounds, based on what is known,'" it should be permitted "rather than excluded from jurors' scrutiny

9   for fear that they will not grasp its complexities or satisfactorily weigh its inadequacies."). But

10   Google's *Daubert* arguments are not only misplaced jury arguments. They are also wrong.

11   ***First,*** Google claims that Prof. Shugan's selection of features to be tested was driven by

12   litigation. This argument is both false and irrelevant. Before including ***any*** of the features relevant to

13   this litigation, Prof. Shugan first confirmed that the features were actually relevant to consumer

14   choice, through interviews, market research, a focus group, industry analyst reports and buyers'

15   guides, as he explained in his deposition. (Shugan Decl. ¶¶ 22–24; Shugan Report p. 7–8, App'x D at

16   5–6.) After he identified 36 features that real-world consumers said mattered in making a purchasing

17   decision, Prof. Shugan ***did*** include features in his survey that were not at issue in this litigation,

18   including brand and price. It is not necessary in conjoint analysis to test every distinguishing feature

19   that may matter to consumers, because conjoint assesses relative importance. (Shugan Decl. ¶ 25.)

20   ***Second,*** Google complains that some of the tested features were "spoonfed" to Prof. Shugan

21   by Prof. Cockburn. (Dkt. 718 at 18.) By that Google means that Prof. Cockburn told Prof. Shugan

22   which infringement-enhanced features had to be tested. These are the same features that Google calls

23   "obvious." (*Id.* at 1.) That is not a flaw in the study. It is the point of the study.

24   ***Third,*** Google claims that Prof. Shugan erred by assessing the value of features "rather than

25   the incremental benefit to those features allegedly enabled by the ***technology*** at issue." (*Id.* at 18.)

26   This argument is nonsense. The measurements that Prof. Shugan took ***were*** of the incremental

27   benefits provided by the patents and copyrights as they affect features, measured by the benchmark

28   tests upheld by the Court. Prof. Shugan measured, for example, how much market shares would shift

1   if applications opened in 0.2 versus 2.0 versus 4.0 seconds – the precise differences demonstrated by

2   the benchmarking. (Shugan Report Exh. 3a–f; Report Exh. 5 (showing benchmarking results).) Prof.

3   Shugan could have measured nothing more granular. (Shugan Decl. ¶¶ 28–32.)

4   ***Fourth,*** Google argues that Prof. Shugan's instruction that survey respondents assume that

5   any feature not listed was the same for all phones "undermines the survey's ability to predict real-

6   world behavior" because "all phones are not the same in the real world" (Dkt. 718 at 16, 18). Google

7   further claims consumers in fact did not hold constant all unnamed features, as is supposedly shown

8   by the purported fact that 24% of respondents "prefer a smartphone costing $200 to a putatively

9   identical one costing $100." (*Id.* at 19). As Prof. Shugan explained in his October reply report,

10   Google misinterprets his data. A proper reading indicates that 8.8%, not 24%, of respondents were

11   insensitive to the $100 price increase. (Shugan Decl. ¶ 39, Exh. A (Shugan Reply Report at 19).)

12   But even that 8.8% does not give substance to Google's claims. As Prof. Shugan explains, the ability

13   of a Bayesian model to predict aggregate consumer behavior is not tested by focusing on individual

14   outlier cases. (*Id.* ¶ 41-42.) In any event, it is widely recognized that consumers may associate a

15   higher price with prestige in a conspicuously consumed item like a smartphone, or with durability.

16   (Dkt. No. 595 (11/1/11 Shugan Decl.) at 10.) Google's complaint is that when it reads the data the

17   wrong way, the study results do not conform to ***Google's*** uninformed assumptions about consumer

18   behavior. Google's mistakes say nothing about the reliability of Prof. Shugan's work.

19   ***Fifth,*** Google argues that Prof. Shugan "conceded" that respondents did not hold non-

20   specified features constant because some implicitly associated prestige or durability with price.   This

21   argument misconstrues Prof. Shugan's testimony. (Shugan Decl. ¶ 33.) Prof. Shugan explains:

22   When respondents implicitly attribute aspects of other attributes to price or brand name,
          that is not inconsistent with holding constant all other variables that are not included in
23   the conjoint study. There is no reason to believe that respondents who do enrich the
          value of the price or brand with variables not included in the conjoint study vary their
24   evaluation of price or brand between the 16 choice sets from which they choose their
          preferred smartphones. Therefore, even if respondents enrich the value of price or
25   brand, I am still able to isolate the incremental benefit of the features at issue accurately.

26   (*Id.* ¶ 33.) In other words, the meaning of price and brand may differ slightly for some consumers,

27   but each individual consumer can be expected to have a constant view of the meaning of price and

28   brand. That is all that this survey requires.

1   ***Finally,*** Google claims that "[c]ourts routinely recognize that a 'common sense'

2 understanding of real-world consumer behavior is an important check against the reliability of

3 surveys," (Dkt. 718 at 20, *citing Johnson Elec. N. Am. v. Mabuchi Motor Am. Corp.*, 103 F. Supp. 2d

4 268, 286 (S.D.N.Y. 2000)), but does not cite a single case where a court actually did so. *Johnson*

5 *Electric* involved no survey at all, contrary to Google's representations. Even so, a rule that

6 admissibility of expert testimony depends on the court's "common sense" reaction to the results

7 violates the principle that *Daubert* does not test results, but methods. *Daubert*, 509 U.S. at 595 (court

8 must focus "solely on principles and methodology, not on the conclusions that they generate"). More

9 importantly, if properly understood, nothing about the conjoint analysis here offends common sense.

10   **F. Prof. Cockburn's Econometric Analysis Is Methodologically Sound**

11   Prof. Cockburn's econometric analysis uses eBay smartphone auction data to determine how

12 likely it is that consumers would switch to a different phone if Android lacked the performance

13 benefits provided by the patents-in-suit. Even if Google's arguments to exclude this evidence had

14 any merit, which they do not, they would at most go to the study's credibility. Indeed, as explained

15 in the attached Cockburn Declaration, Google's expert Dr. Leonard makes grievous errors in his

16 treatment of the eBay data. (*See, e.g.*, Cockburn Decl. ¶ 34–40 (explaining that Dr. Leonard, *inter*

17 *alia*, improperly drops variables, misunderstands collinearity, and applies linear tests to nonlinear

18 models).) This conflict among the experts should be reserved for trial.

19   1.   Prof. Cockburn's Econometric Analysis Is Based On Reliable Data.

20 Google argues that the preferences of people who buy used smartphones on eBay are not

21 representative of purchasers of new phones bundled with a service agreement (Dkt. 718 at 22), but

22 provides no reason to believe that the two groups value incremental performance gains differently.

23 (*See* Cockburn Decl. ¶¶ 9–11.) *See Kennedy*, 161 F.3d at 1230–31 (defendant failed to introduce any

24 evidence that extrapolation at issue was not scientifically valid). Economics and business literature

25 teaches that there are strong relationships between new and used goods. (Cockburn Decl. ¶ 11.)

26 Google's own Chief Economist, Hal Varian, has emphasized how useful eBay data is for

27 understanding consumers' willingness to pay for products they demand, stating that "Online auctions

28 offer a wonderful laboratory for experimental economists." (Cockburn Decl. ¶ 20.)

23

1   Extrapolation is acceptable science. "Studies involving similar but not identical situations

2   may be helpful, so long as an expert sets forth the steps used to reach the conclusion that the research

3   is applicable." *In re Phenylpropanolamine (PPA) Prods. Liab. Litig.*, 289 F. Supp. 2d 1230, 1245

4   (W.D. Wash. 2003) (quoting *Domingo v. T.K., M.D.*, 289 F.3d 600, 605–06 (9th Cir. 2002) (internal

5   punctuation omitted)). Contrary to Google's claims, Prof. Cockburn *did* explain why online

6   consumers of used phones could be expected to behave similarly to brick-and-mortar purchasers of

7   new phones (Report App'x C ¶¶ 9–11), and *did* control for possible difference between new and used

8   phones. (*Id.* ¶ 29; *see also* Cockburn Decl. ¶ 11.) His analysis is sound.

9   2.   Prof. Cockburn's Analysis Is Based On Reasonable Assumptions.

10   Google next challenges two aspects of Prof. Cockburn's econometrics analysis: his

11   assumption that poorly performing, non-infringing Android phones would be sold at the same price

12   as real world Android phones, and his use of a ten-day window to observe data for each bidder.

13   "[C]laims that 'the assumptions relied on by an expert are unfounded is generally an argument

14   that goes to the weight rather than the admissibility of the evidence.'". *Arista Records*, 2011 WL

15   1674796, at *3. *See also U.S. Gypsum Co. v. Lafarge N. Am. Inc.*, 670 F. Supp. 2d 737, 740–41

16   (N.D. Ill. 2009) (rejecting *Daubert* motion where infringers took issue "not with Davis's subsequent

17   calculations, but with her initial assumptions;" holding that "the jury will decide whether to accept or

18   reject that factual predicate.") Google's two "authorities" for the proposition that *Daubert* excludes

19   assumptions do not help it. The first emphasizes that testimony is excludable only if the assumptions

20   are "so unrealistic and contradictory as to suggest bad faith." *Boucher v. U.S. Suzuki Motor Corp.*, 73

21   F.3d 18, 21 (2d Cir. 1996). The second is not an opinion at all. Google quotes and cites the

22   *defendant's losing brief* on a motion *in limine* – a motion that the court denied. (Norton Decl. Exh.

23   C (*Medical Instr. & Diagnostics Corp. v. Elekta AB*, No. 97-CV-02271, Dkt. No. 464, at 14–15).)

24   Google argues that in a world in which Android phones performed more poorly, the price of

25   Android phones would have declined, blunting the effect on its market share. But with the exception

26   of a small number of Nexus One phones that Google sold directly, Google would have no influence

27   over the price at which OEMs sold phones or the extent to which carriers subsidized them. Google

28   cites no evidence to the contrary. Indeed, Prof. Cockburn will testify that the more likely scenario is

24

1 that Android would have failed if Google required OEMs or carriers to sell (or subsidize) poorly

2 performing phones at a lower prices, while still facing the same costs. (Cockburn Decl. ¶¶ 13–16.)

3 Consequently, Prof. Cockburn's assumption does not inflate damages; it understates them. Indeed,

4 the conclusion Google assumes – that poorer-performing Android phones would command a lower

5 price – corroborates the conclusion of a significant reasonable royalty in this case.

6   Nor does Prof. Cockburn's choice of a ten-day window to observe bids overestimate the

7 number of people who would not purchase a smartphone. The number of buyers who would switch

8 away from Android phones is not tied to a particular auction; the analysis compares successful

9 bidders' revealed valuations to the average prices for the phones on which they bid during the year

10 the auction took place. (Cockburn Decl. ¶¶ 17–20.) Google merely asserts that if the data shows that

11 15% of prospective purchasers would have decided not to buy a smartphone in the but-for world, the

12 data must be wrong. Google does not support that assertion or explain why that result is so

13 surprising. In fact, in 2009, almost 80% of U.S. wireless subscribers used feature phones, not

14 smartphones, and the majority of US phones today still are feature phones. (Cockburn Decl. ¶ 32.)

15 Moreover, any supposed bias in Prof. Cockburn's assumption is mitigated, if not eliminated, by Prof.

16 Cockburn's conservative assumption that Android did not increase the overall size of the smartphone

17 market. (*Id.*) Google's argument is at most a cross-examination point.

18 **III. CONCLUSION**

19   Oracle respectfully requests that the Court deny Google's motion to strike.

20

21 Dated: February 24, 2012   BOIES, SCHILLER & FLEXNER LLP

22   By: */s/ Steven C. Holtzman*
                                                 Steven C. Holtzman

23   *Attorneys for Plaintiff*
                                               ORACLE AMERICA, INC.

24

25

26

27

28

25